

**Department of Environmental Conservation  
Response to Comments**

**for the**

**Mechanical Placer Miners General Permit**

**APDES Permit No. AKG370000**

**Public Notice: March 10, 2015 – April 10, 2015**

**June 22, 2015**



Alaska Department of Environmental Conservation  
Wastewater Discharge Authorization Program  
555 Cordova Street  
Anchorage, AK 99501

## 1.0 Introduction

### 1.1 Summary of the Permit

The Mechanical Placer Miners General Permit (AKG370000) authorizes discharges of process wastewater, dewatering water, and drainage waters from open-cut mines and mechanical dredges that process gold placer ores and rely on beneficiation processes based on gravity separation. The permit provides statewide coverage for discharges to fresh waters of the U.S., with certain limitations. Fact Sheet Sections 1.0 and 2.0 provide additional coverage information and regulatory history. Specific conditions under which pollutants may be discharged are detailed in the permit and further explained in the fact sheet.

### 1.2 Opportunities for Public Participation

The Alaska Department of Environmental Conservation (DEC or the Department) proposed to issue an APDES wastewater discharge permit for the discharges from mechanical placer miners. To ensure public, agency, and tribal notification and opportunities for participation, the Department:

- identified the permit on the annual Permit Issuance Plan posted online at: <http://www.dec.state.ak.us/water/wwdp/index.htm>;
- notified, via letter, fax and/or email, potentially affected tribes, local governments, the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Environmental Protection Agency (EPA) that the Department would be working on this permit;
- posted a preliminary draft of the permit on-line for a 10-day applicant review February 3, 2015 and notified potential permittees, tribes, local governments, and State and federal agencies, including the Alaska Department of Fish and Game (ADF&G), Alaska Department of Natural Resources (DNR), NMFS, the USFWS, and EPA;
- formally published public notice of the draft permit in two newspapers (*Alaska Dispatch News* and *Fairbanks Daily News-Miner*), posted the public notice on the Department's public notice web page, and distributed the public notice to potential permittees, tribes, local governments, and State and federal agencies, including ADF&G, DNR, NMFS, the USFWS, and EPA;
- posted the proposed final permit modification on-line for a 5-day applicant review June 3, 2015 and notified potential permittees, tribes, local governments, and State and federal agencies, including ADF&G, DNR, NMFS, the USFWS, and EPA; and
- sent email notifications via the APDES Program List Serve when the preliminary draft, draft, and proposed final permit were available for review.

The Department received written comments on the draft permit from the following interested parties: Alaska Department of Environmental Conservation, Division of Environmental Health (DEH); and EPA.

This document summarizes the comments submitted and the justification for any action taken or not taken by the Department in response to the comments. Commenter references are included within the comment summaries.

### **1.3 Final Permit**

The final permit was issued by the Department on June 22, 2015 with an effective date of August 1, 2015. There were changes from the public-noticed permit to the final permit based on comments received. Significant changes are identified in the response to comments and reflected in the final permit and fact sheet. Minor edits, such as format changes or correction of typos, were made to the permit and fact sheet for clarification and may not be specifically identified in this document.

## **2.0 Comments on Permit Coverage**

### **2.1 Comment - Permit Parts 1.0 (Coverage) and 1.5 (Notification Requirements):**

One set of comments recommended that the permit exclude coverage for discharge to surface water bodies used by a public water system (PWS) and that either a separate general permit, or individual permits, be developed that covers discharges to surface water bodies used by PWS sources.

The comments also recommended that the applicant identify all PWS sources using the surface water body, or bodies, in which discharge will occur and if discharge is authorized, the applicant notify the PWS prior to discharge commencing. (DEH)

#### **Response:**

To date, all placer operations have taken place in remote areas and consequently, have not come close to encroaching on a public water system. Nonetheless, the permit contains water-quality based effluent limits that are protective of all waterbody uses, including drinking water. See Fact Sheet Section 5.0 (Effluent Limitations) and Appendix A (Basis for Effluent Limitations). Unless a mixing zone is authorized, all discharges must meet Alaska Water Quality Standards (WQS) for drinking water at the point of discharge into the waterbody. Mixing zones must undergo an additional review process and, if authorized, must meet WQS at a fixed distance downstream. In addition, DEC's Wastewater Discharge Authorization Program is unaware of any complaints from PWS sources regarding discharges from placer mine operations encroaching on drinking water sources.

Based on the location of discharges and the level of protection within the current permit, additional stipulations have not been included in the permit. However, DEC reviews each Notice of Intent on a case-by-case basis, particularly those with mixing zone requests, and responds to all water quality complaints. If warranted, DEC retains

the ability to deny coverage under the general permit and require the applicant apply for and obtain an individual permit.

### **3.0 Comments on Effluent Limitations and Monitoring Requirements**

#### **3.1 Comment - Permit 2.3 (Reclassified Waters):**

One comment voiced concerns regarding implementation of conditions for authorizations on reclassified waters and stated that “the industrial standard for arsenic is open-ended and the turbidity standard is confusing.” The comment requested that DEC “either explain how the determinations necessary to interpret the WQS will be made or consider deleting this section and covering these facilities under the standard GP requirements.” (EPA)

#### **Response:**

The permit and fact sheet language is consistent with conditions in the 2012 Mechanical Placer Miners General Permit. Alaska Water Quality Standards (WQS) require protection of beneficial uses according to the classes and subclasses listed in 18 AAC 70.020(a). These use classes are protected by both narrative and numerical criteria contained in 18 AAC 70.020(b). Through regulation 18 AAC 70.230(e), specific waterbodies have been reclassified from the designations listed in 18 AAC 70.020(a). Studying 18 AAC 70.230(e) reveals that some Alaska waterbodies have been reclassified to only protect the industrial use (18 AAC 70.020(a)(1)(A)(iv)). Under 18 AAC 70.020(b), both the arsenic and turbidity criteria for protection of the fresh water industrial use offer narrative but have no numerical criteria. In these two cases where there are only narrative criteria without numerical criteria, the language is explicit as copied below. In addition, all WQS applied through this permit have been approved by EPA.

Under 18 AAC 70.020(b)(11)(A)(iv) for toxic and other deleterious organic and inorganic substances, “Concentrations of substances that pose hazards to worker contact may not be present.”

Under 18 AAC 70.020(b)(12)(A)(iv) for toxic and other deleterious organic and inorganic substances, “May not cause detrimental effects on established water supply treatment levels.”

To address concerns regarding permit conditions on reclassified waters, procedural language requiring authorizations with modified limits to undergo public notice and review has been added to the fact sheet (Section 4.1). This procedure is similar to public notice requirements for mixing zone authorizations.

**Comment - Permit Parts 2.2 (Designated Mixing Zones) and 3.4 (Site-Specific Conditions):**

One comment requested the permit include a provision that a discharge to a waterbody impaired for sediment/turbidity is not eligible for a mixing zone. The comment also requested that DEC clarify how discharges to waterbodies that are impaired or have a Total Maximum Daily Load (TMDL) will be addressed in the context of this general permit to ensure public notice and comment period are provided. (EPA)

**Response:**

Because waters that are listed as impaired for sediment or turbidity lack the available dilution for a discharge to meet water quality standards in the waterbody, additional language has been added to the mixing zone procedure section within the fact sheet (Section 4.2). The language explains that modified turbidity limits and mixing zones under the general permit are not available on waters that are listed as impaired for sediment or turbidity. In practice, DEC does not authorize mixing zones on impaired waters. Therefore, clarification of this practice will not create additional burden on any active operations.

To address concerns regarding public notice for authorizations with site-specific conditions, the language under Permit Part 3.4 and Fact Sheet Section 7.4 have been modified. The modified permit language considers only those conditions that are addressed by an approved TMDL, which as required, has already undergone public notice (40 CFR 130.7).

**3.2 Comment - Permit Part 2.2.4 (Designated Mixing Zones):**

One comment suggested that DEC modify the reports under this permit provision to “specify how the stated requirements apply or are met, and remove the text, which pre-emptively limits DEC's enforcement discretion.” (EPA)

**Response:**

Based on the comment, the permit language has been revised to prohibitions with exemptions, and no longer potentially “excuses” violations thereby potentially limiting enforcement discretion.

This language was intended to allow flexible measures through which a permittee could demonstrate that water quality standards are met at the mixing zone boundary. This flexibility is particularly warranted on occasions when a permittee needs to discharge a large volume of low turbidity water at a higher flow rate than the limit within the authorization. This generally occurs in the spring as a need to dewater settling ponds and mine pits. Flow limits are also unnecessary when the discharge

meets water quality criteria at the discharge point. Under such situations, the permittee should have an assurance that when the discharge is in compliance, enforcement discretion is irrelevant. To retain that assurance, the language stating *“If the permittee exceeds either the flow or modified turbidity limit, DEC may not consider the permittee in violation if...”* has been replaced with *“The discharge shall not exceed the flow limit provided in the mixing zone authorization unless...”* The allowance for a turbidity exceedance has been removed from this part.

### **3.3 Comment - Permit Part 2.4 (Storm Exemptions):**

One comment requested a clarification of how DEC will know if a facility complies with the water quality based effluent limits (WQBELs) applicable to precipitation event discharges, if no monitoring is required. (EPA)

#### **Response:**

The permit contains provisions, not included in prior issuances, requiring that “the permittee, upon discovery, immediately ceases any operations, including sluicing, that contribute sediment to the discharge and takes all reasonable steps to maintain treatment of the wastewater and to minimize the amount of overflow” (Permit Part 2.4.1.3). The requirement to cease operation assumes that water quality has been threatened and ensures the permittee has taken all possible action necessary to control the discharge. Corrective actions imposed by the permit favor environmental protection and negate the need to determine whether the effluent complies with the WQBELs. However, there is a need to monitor and demonstrate compliance with permit limits before the operator may resume operation (Permit Part 2.4.3). Additionally, the 24-hour notification (Permit Part 2.4.1.4) requirement ensures DEC is immediately aware of the discharge and involved with the remediation action. Storm exemption requirements are further justified within the fact sheet (Sections 5.3 and 6.2).